

PAT-NO: JP02002355074A

DOCUMENT-IDENTIFIER: JP 2002355074 A

TITLE: NUCLEIC ACID MOLECULE AND POLYPEPTIDE SPECIFIC TO  
ENTEROPATHOGENIC ESCHERICHIA COLI O157:H7 AND METHOD FOR  
USING THE SAME

PUBN-DATE: December 10, 2002

INVENTOR-INFORMATION:

NAME	COUNTRY
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ASSIGNEE-INFORMATION:

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, C12N001/19, C12N001/21, C12N005/10, C12P021/02, C12Q001/68  
, G01N033/15, G01N033/50, G01N033/53, G01N033/566  
, G01N037/00

ABSTRACT:

PROBLEM TO BE SOLVED: To provide a nucleic acid and an amino acid sequence capable of becoming useful for detecting and/or treating an infection with enteropathogenic Escherichia coli O157:H7 and a method for using the nucleic acid and the amino acid sequence.

**SOLUTION:** Genetic informations of the new nucleic acid specific to O157, a new gene included therein and the new polypeptide coded by the gene are provided by analyzing the whole genetic informations.

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DERWENT-WEEK: 200343

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TITLE: Enterohemorrhagic Escherichia coli O157:H7-specific nucleic acid molecule and a polypeptide and its use, a polypeptide, a vector and a host cell

PATENT-ASSIGNEE: UNIV TSUKUBA[UYTSN]

PRIORITY-DATA: 2001JP-0112010 (January 24, 2001)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 2002355074 A	December 10, 2002	N/A	000	C12N 015/09

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
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ABSTRACTED-PUB-NO: JP2002355074A

BASIC-ABSTRACT:

NOVELTY - Enterohemorrhagic Escherichia coli O157:H7-specific nucleic acid molecule, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) polypeptide specific to Enterohemorrhagic E. coli O157:H7;
- (2) a vector containing the above nucleic acid molecule as an insert;
- (3) a host cell transformed by the above vector;
- (4) preparation of an O157:H7-specific polypeptide by culturing the above host cell;
- (5) Enterohemorrhagic E. coli O157:H7-specific oligo- or polynucleotide consisting of a nucleotide sequence constituted by at least 8 nucleotides of:

- (a) a nucleotide sequence selected from the group consisting of 1866 sequences, fully disclosed in the specification; and/or
- (b) a nucleotide sequence complementary to the nucleotide sequence (a); and

(6) use of the above oligo- or polynucleotides as hybridization probes or PCR primers.

ACTIVITY - Anti-bacterial. No biological data is given.

MECHANISM OF ACTION - None given.

USE - The polypeptide can be used in detection and/or treatment of O157:H7 infection.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: **ESCHERICHIA COLI SPECIFIC NUCLEIC ACID MOLECULAR POLYPEPTIDE POLYPEPTIDE VECTOR HOST CELL**

DERWENT-CLASS: B04 D16 S03

CPI-CODES: B04-B03C; B04-E03; B04-E05; B04-E08; B04-F10A3E; B11-C08E1; B11-C08E5; B12-K04A4; B12-K04F; B14-A01A3; D05-H08; D05-H09; D05-H12A; D05-H12D1; D05-H12E; D05-H14A1; D05-H17A6; D05-H17B6;

EPI-CODES: S03-E14H4;

CHEMICAL-CODES:

Chemical Indexing M1 \*01\*

Fragmentation Code

M417 M423 M710 M720 M750 M781 M905 N102 N104 N131  
N135 N136 N161 P220 P831 Q233 Q505

Specfic Compounds

A00H3T A00H3A A00H3D A00H3N A00H3P A00H3U

Chemical Indexing M1 \*02\*

Fragmentation Code

M417 M423 M710 M720 M750 M781 M905 N102 N104 N131  
N135 N136 N161 P220 P831 Q233 Q505

Specfic Compounds

A00H1T A00H1A A00H1D A00H1N A00H1P A00H1U

Chemical Indexing M1 \*03\*

Fragmentation Code

M423 M710 M750 M781 M905 N102 N131 N135 N136 N161  
P831 Q233 Q505

Specific Compounds  
A00NSA A00NSD A00NSN

Chemical Indexing M1 \*04\*  
Fragmentation Code  
M417 M423 M710 M905 N131 N135 N136 N161 Q233  
Specific Compounds  
A00GTN

Chemical Indexing M6 \*05\*  
Fragmentation Code  
M905 P220 P831 Q233 Q505 R515 R521 R534 R535 R537  
R614 R627 R637 R639

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